

HSP 6.05
Page 1 of 17
June 20, 1990
Replaces: 11/15/89

RADIOLOGICAL/H&S WORK PERMIT

1. SCOPE

This practice establishes the requirements and responsibilities for issuing a Radiological/H&S Work Permit (see Figures HSP 6.05-1, 2, and 3). A Radiological/H&S Work Permit identifies the necessary precautions to be taken for the safety and health of personnel and the protection of property.

2. APPLICATION

Radiological/H&S Work Permits are required for jobs specified in Section 5.

3. DEFINITIONS

Job Supervisor

The immediate supervisor of the employees performing the work. For contractor work, the Job Supervisor is the Construction Management (CM) Coordinator.

Responsible User

The supervisor who normally controls the area or equipment.

Job Personnel

The employees actually performing the work described on the Radiological/H&S Work Permit.

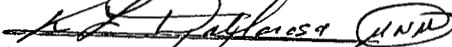
4. GENERAL RESPONSIBILITIES

4.1 Job Supervisor

The Job Supervisor is responsible for initiating a Radiological/H&S Work Permit when required, for coordinating the completion of the permit, for ensuring the overall safety of the job, and for complying with the requirements of this practice.

ADMIN RECORD

REVIEWED FOR CLASSIFICATION/UCNI

By 
Date 11/11/91

A-SW-000120

HEALTH & SAFETY PRACTICES
Radiological/H&S Work Permit

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RADIOLOGICAL/HEALTH & SAFETY WORK PERMIT		
Instructions and requirements for the use of this form are contained in H&S 6.05 Radiological/H&S Work Permit		
SECTION I - JOB INFORMATION (To be completed by job supervisor or permit initiator)		
Job Name _____		Auth or WO # _____
Bldg. _____	Room # _____	Date _____ From _____ (AM/PM) To _____ (AM/PM)
Scope of Work _____		
SECTION II - DESCRIPTION OF HAZARDS (To be completed by responsible user)		
MATERIAL HAZARDS <input type="checkbox"/> HNO ₃ (Nitric Acid) <input type="checkbox"/> HCl (Hydrochloric Acid) <input type="checkbox"/> H ₂ SO ₄ (Sulfuric Acid) <input type="checkbox"/> HF (Hydrofluoric Acid) <input type="checkbox"/> Caustic <input type="checkbox"/> Flammables <input type="checkbox"/> Trichloroethylene <input type="checkbox"/> Beryllium <input type="checkbox"/> Plutonium <input type="checkbox"/> Uranium <input type="checkbox"/> Asbestos Fire Suppression Interruption? <input type="checkbox"/> Yes <input type="checkbox"/> No Other hazards and precautions _____	ELECTRICAL HAZARDS Energized System? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 120V <input type="checkbox"/> 220V <input type="checkbox"/> 480V <input type="checkbox"/> 600V <input type="checkbox"/> Above 600V _____ V <input type="checkbox"/> Laser Involved? <input type="checkbox"/> Microwave Involved?	HIGH TEMP/HIGH PRESSURE <input type="checkbox"/> Vacuum <input type="checkbox"/> Ambient Pressure <input type="checkbox"/> <15 psig <input type="checkbox"/> >15 psig _____ psig <input type="checkbox"/> Below Ambient Temp _____ °F <input type="checkbox"/> Ambient Temp _____ °F <input type="checkbox"/> Above Ambient Temp _____ °F <input type="checkbox"/> Steam System <input type="checkbox"/> Hydraulic System
SECTION III - RADIOLOGICAL AND NONRADIOLOGICAL SAFETY REQUIREMENTS (To be completed by Radiological Protection, and/or H&S Area Engineer)		
JSA REQUIRED <input type="checkbox"/> Yes <input type="checkbox"/> No JOBSITE REVIEW REQUIRED <input type="checkbox"/> Yes <input type="checkbox"/> No		* PACKAGE REQUIRED <input type="checkbox"/> Yes <input type="checkbox"/> No RADIOLOGICAL PROTECTION TECHNOLOGIST (RPT) REQUIRED <input type="checkbox"/> YES <input type="checkbox"/> NO
PROTECTIVE APPAREL <input type="checkbox"/> Coveralls <input type="checkbox"/> Tyvek Suit <input type="checkbox"/> Plastic Suit <input type="checkbox"/> Acid Suit <input type="checkbox"/> Surgeon's Gloves <input type="checkbox"/> Plastic Gloves <input type="checkbox"/> Rubber Gloves <input type="checkbox"/> Leather Gloves <input type="checkbox"/> Cloth Cap <input type="checkbox"/> Cloth Hood <input type="checkbox"/> Plastic Hood <input type="checkbox"/> Booties <input type="checkbox"/> Plastic Booties <input type="checkbox"/> Rubber Boots <input type="checkbox"/> Safety Glasses <input type="checkbox"/> Goggles <input type="checkbox"/> Face Shield <input type="checkbox"/> Hard Hat <input type="checkbox"/> Hearing Protection <input type="checkbox"/> Taped Openings <input type="checkbox"/> Other _____	RESPIRATORY REQUIREMENTS <input type="checkbox"/> Half Mask <input type="checkbox"/> Full Face <input type="checkbox"/> Supplied Breathing Air <input type="checkbox"/> SCBA <input type="checkbox"/> Chemical Canister RADIOLOGICAL PROTECTION REQUIREMENTS <input type="checkbox"/> Start of job <input type="checkbox"/> On call <input type="checkbox"/> Full time DOSIMETRY REQUIREMENTS <input type="checkbox"/> TLD Dosimeter <input type="checkbox"/> Extremity Dosimeter <input type="checkbox"/> Special Dosimeter ELECTRICAL PROTECTION REQUIREMENTS (Consult Job Supervisor) <input type="checkbox"/> Insulating Mat <input type="checkbox"/> Insulating Blanket <input type="checkbox"/> Cover up <input type="checkbox"/> High Voltage Sleeves <input type="checkbox"/> High Voltage Gloves <input type="checkbox"/> _____ Class I <input type="checkbox"/> _____ Class II <input type="checkbox"/> Hot Sticks <input type="checkbox"/> TIC Tracer <input type="checkbox"/> Insulated Bucket Truck <input type="checkbox"/> Grounding Cable <input type="checkbox"/> Grounding Stick	RADIOLOGICAL PROTECTION PRE-JOB SURVEY Contamination levels and extent _____ Gamma _____ Neutron _____ Limitations _____ RPT Signature _____ RADIOLOGICAL PROTECTION POST-JOB SURVEY Contamination levels and extent _____ Gamma _____ Neutron _____ RPT Signature _____ Other Special Requirements _____
CONTAMINATION CONTROL VENTILATION REQUIREMENTS <input type="checkbox"/> Containment Pen <input type="checkbox"/> Plastic House <input type="checkbox"/> SBA House <input type="checkbox"/> Plastic Sleeve <input type="checkbox"/> Glove Bag <input type="checkbox"/> Air Mover <input type="checkbox"/> Down Draft <input type="checkbox"/> GB Exhaust <input type="checkbox"/> Other _____		

HF-13010 (Rev. 3/90) Supersedes Previous Issues

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Figure HSP 6.05-1. Radiological/H&S Work Permit, Page 1

INSTRUCTIONS FOR COMPLETING RADIOLOGICAL/HEALTH & SAFETY WORK PERMIT

(Refer to H&S 6.05, Radiological/Health & Safety Work Permit procedure for full explanation)

SECTION I - Job Information

This section is to be completed by the job supervisor (the immediate supervisor of the employees performing the work) or a designated permit initiator. For contractor work, the job supervisor is the CM coordinator.

JOB NAME: Enter name of job as it appears on work order or construction package.

AUTH OR WO#: Enter authorization or work order number.

BLDG. and ROOM #: Enter the building and room number in which the work will be performed.

DATE, FROM, and TO: Enter the start date and times for which the permit is valid.

SCOPE OF WORK: Enter a brief description of the work to be performed during the duration of this permit.

SECTION II - Description of Hazards

This section is to be completed by the responsible user (the supervisor who normally controls the area or equipment). Indicate what hazards may be present in the systems on which the work will be performed and in the surrounding area.

MATERIAL HAZARDS: Check what chemical and material hazards exist. Write in any other hazards that are not listed.

ELECTRICAL HAZARDS: Check whether the subject systems will be energized when the work is performed. Check the voltage level if applicable and if a laser or microwave hazard exists.

HIGH TEMP/HIGH PRESSURE: Indicate the temperature and pressure of the subject systems.

FIRE SUPPRESSION INTERRUPTION: Indicate if the fire suppression system in the area will be interrupted.

OTHER HAZARDS AND PRECAUTIONS: Enter any other hazards and precautions that do not appear elsewhere on the permit.

SECTION III - Radiological and Nonradiological Safety Requirements

This section is to be completed by the H&S Area Engineer and, if the job involves possible radioactive contamination, Radiological Protection. The H&S Area Engineer will determine if a Jobsite Review is required and if Radiological Protection input is required and indicate so at the top of this section.

PROTECTIVE APPAREL: Check the protective apparel required. Consider radiological, chemical, electrical, and other safety hazards when completing this section.

CONTAMINATION CONTROL/VENTILATION REQUIREMENTS: Check any special contamination control or ventilation requirements.

RESPIRATORY REQUIREMENTS: Check respirator requirements for radiological and chemical hazards.

RADIOLOGICAL PROTECTION REQUIREMENTS: Indicate if Radiological Protection coverage is required at the start of job only, on an "on call" basis, or on the job full time.

DOSIMETRY REQUIREMENTS: Indicate dosimetry requirements.

ELECTRICAL PROTECTION REQUIREMENTS: The H&S Area Engineer should consult with the job supervisor in order to complete this section. Indicate electrical protection required.

RADIOLOGICAL PRE-JOB SURVEY: Radiological Protection will survey the work area, complete this section and sign before the job begins.

RADIOLOGICAL POST-JOB SURVEY: Radiological Protection will survey the area at the completion of the job, complete this section and sign.

OTHER SPECIAL REQUIREMENTS: Any safety requirements not covered by the checklists in this section will be noted here.

SECTION IV - Preparation for the Job

The majority of this section is to be completed by the responsible user. The questions concerning lockout and tagout is to be completed jointly by the user and job supervisor.

SECTION V - Approval Signatures

The work will be reviewed with all personnel that will be involved in the job. They will then sign that they understand the permit and the requirements. The job supervisor or responsible user will notify the building manager of the upcoming work and initial the permit. The responsible user, job supervisor, H&S Area Engineer, and any other H&S discipline required by the Area Engineer will sign the permit. When applicable, the Radiological Protection Foreman and contractor supervisor will also sign this section.

SECTION VI - Permit Extension

The permit can be extended beyond one shift only with the permission of the H&S Area Engineer. The job supervisor(s) must tour the work area each working shift of each working day to ensure compliance with H&S requirements and initial Section VI of the white copy and the card copy to indicate this was done.

DISTRIBUTION

Distribute and retain as indicated. Post card at the jobsite, and remove and destroy the card when the permit has expired.

RADIOLOGICAL/HEALTH & SAFETY WORK PERMIT - CONTINUED	
Auth or WO # _____ Date _____	
SECTION IV - PREPARATION FOR THE JOB (To be completed by the responsible user and job supervisor)	
The area or equipment is ready to be worked on and is in safe condition.	_____ Yes
The necessary systems have been shutdown, drained, blanked, etc.	_____ Yes _____ N/A
The necessary systems have been locked out/tagged out. # _____	_____ Yes _____ N/A
Voltage checked after lock out.	_____ Yes _____ N/A
Utilities has been notified of upcoming work and is prepared.	_____ Yes _____ N/A
The Fire Department has been notified of upcoming work and is prepared.	_____ Yes _____ N/A
SECTION V - APPROVAL SIGNATURES	
THE ABOVE REQUIREMENTS HAVE BEEN REVIEWED WITH AND ARE UNDERSTOOD BY ALL JOB PERSONNEL.	
(Job personnel signatures)	
The Building Manager (or designee) has been notified of upcoming work _____ (notifier's initials)	
THE SIGNATURES BELOW INDICATE REVIEW AND CONCURRENCE WITH THE WORK PERMIT.	
Responsible User _____	Job Supervisor _____
RPT Foreman (if applicable) _____	Contractor Supervisor (if applicable) _____
H&S Area Engineer _____	Other _____
SECTION VI - PERMIT EXTENSION	
WORK PERMIT EXTENDED TO: _____ H&S Area Engineer _____	
Job Supervisor agrees to tour area daily to ensure compliance with H&S requirements. (Initials required for each day of extension)	
Dates: _____	
Initials: _____	

DISTRIBUTION

Job Supervisor -	White (retain permanently with job file)
Responsible User -	Blue (retain for 30 days)
Radiological Protection -	Yellow (retain for 30 days)
H&S Area Engineer -	Green (info copy)

POST CARD AT JOB SITE

FIRE AND EMERGENCY - DIAL 2911

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Figure HSP 6.05-3. Radiological/H&S Work Permit, Page 2

4.2 Responsible User

The Responsible User must comply with these requirements and is responsible for communicating to the workers any hazard that exists in the area.

4.3 Job Personnel

Job personnel shall comply with these requirements and the precautions specified on the H&S Work Permit.

4.4 H&S Area Engineer

The H&S Area Engineer reviews and signs all Radiological/H&S Work Permits and ensures review by the H&S disciplines and the Fire Department, when necessary.

4.5 Operations Manager

The Operations Manager, who is notified of all work covered by a Radiological/H&S Work Permit shortly before the work begins, has the authority to modify or halt work plans.

5. **REQUIRED PERMITS AND REVIEW**

A Radiological/H&S Work Permit is required for the following jobs:

5.1. Breaking the Primary Containment of a Radioactive System

When breaking the primary containment of a radioactive system, except for routine work which is covered by an H&S-approved practice.

Work permits for this type of work require concurrence from Radiological Operations.

5.2 Work Using Breathing Air

When personnel perform work using breathing air, i.e., self-contained or supplied air, except for work which is covered by an H&S-approved practice.

5.3 Work Inside Plenums, Ducts, Gloveboxes

When personnel shall be working inside plenums, ducts, or gloveboxes. "Working inside" is interpreted as the entire body being inside the duct, glovebox or plenum. In such cases, the permit must be reviewed and signed by the Operations Manager as the Responsible User.

5.4 Work on Air-Handling Systems, Air Stacks

For any work on air-handling systems, including opening of exhaust systems, or work on air stacks, etc.;, except for pre-filter changing of room-air exhaust ducts, heating, ventilating, and supply plenums.

5.5 Glovebox and Hood Filter Changes

For glovebox and hood filter changing.

5.6 Work on Radioactive Sources

For any work on radiation-producing devices or systems containing radioactive sources except alpha-mets and combos (combination hand/foot checking instruments).

5.7 Exhaust and Plenum Filter Changing

For exhaust and recirculating plenum filter changing.

5.8 Physical Changes to Potable Water or Process Drainage

For any physical changes to potable water or process drainage.

5.9 Interruption of Environmental Samplers

For interruption of environmental samplers.

5.10 Work on Exposed Electrical Systems

For work on exposed electrical systems, as follows:

- o High voltage (>600 V-AC), energized or de-energized.
- o Repair of any energized electrical system.
- o Troubleshooting, testing, or calibrating any energized electrical system, except when both of the following two conditions are met:

The work is performed by one of the following crafts:
Alarm/Telecommunications Technician; Auto Mechanic/Vehicle Modification Mechanic (vehicles only); Electrician Technician; Electronics Technician; Lineman-Electrician; Electrician; Qualified Support Engineers; Metrology Technicians;

and

The craftsperson/qualified Support Engineer has been trained in safe work practices of electrical systems/equipment, is aware of electrical hazards and the necessary protective requirements, and the training is documented.

5.11 Specified Interruption of Electric Power

For interruption of electric power affecting more than the piece of equipment being worked on, except for scheduled power outages.

5.12 Specified Nonroutine Hoisting/Rigging of Equipment

For nonroutine hoisting/rigging of equipment during construction or maintenance operations, such as gloveboxes, machinery, transformers or other critical equipment.

5.13 Possibility of Specified Contaminant Release

For any job where the possibility exists for a radioactive or hazardous contaminant release to the outside environment, either by air, liquids, or solids.

5.14 Known or Suspected Beryllium/Asbestos Contamination

Where beryllium or asbestos contamination is known or suspected to be present or would be released during the work activity, except for routine production operations which are covered by an H&S-approved practice.

5.15 Potential for Hazard Exists

Where a hazard is suspected to exist or could be created, such as work involving high pressure (greater than 15 lbs per sq. in.), high temperature (greater than 200°F), caustics, acids, or other hazardous materials per HSP 9.07, "Written Hazard Communications Program."

5.16 Temporary Reassignment of Equipment

For temporary reassignment to Maintenance of the responsibility for an area or piece of equipment.

5.17 Operating Mobile Cranes Outside Designated Construction Area

When operating mobile cranes outside of the designated construction area and near existing structures or recognized hazards, e.g., near overhead power lines and surfaces.

5.18 When Requested by the Originator of the Permit

If requested by the originator of the permit, any employee involved in the preparation or execution of the job, the Job Supervisor, the Responsible User, an H&S Area Engineer, any H&S discipline, or the Fire Department.

5.19 Painting with Flammable-Based Paints

For any painting with flammable-based paints (see HSP/FLP 34.04).

5.20 Specified Ladder/Scaffold Work in a Controlled Area

All work performed in a Controlled Area from a ladder or scaffold not covered by an H&S approved procedure.

6. **RESPONSIBILITIES AND REQUIREMENTS**

6.1 Issuance

The Job Supervisor shall ensure that a Radiological/H&S Work Permit is issued when required (see Section 5).

6.2 How to Complete the Radiological/H&S Work Permit

Figure HSP 6.05-4 summarizes the activities in completing a Radiological/H&S Work Permit. The instructions for completing the permit are as follows:

6.2.1 Section I: Job Information

6.2.1.1 This section is to be completed by the Job Supervisor. For contractor work, the Job Supervisor is the CM Coordinator.

JOB NAME: Enter the name of job as it appears on the work order or construction package.

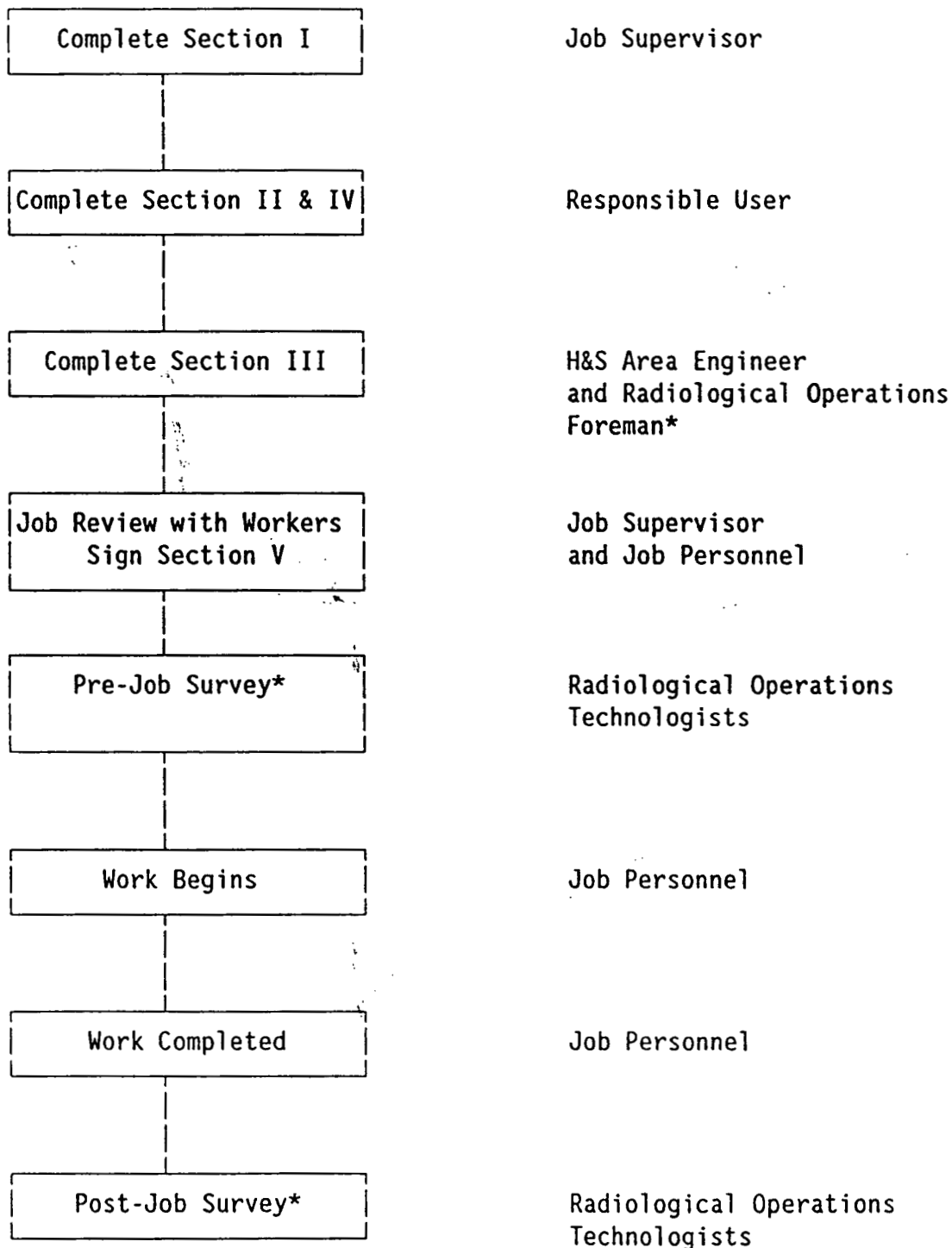
AUTH OR WO#: Enter the authorization or work order number.

BLDG. and ROOM#: Enter the building and room number in which the work will be performed.

DATE, FROM, and TO: Enter the start date and times for which the permit is valid.

SCOPE OF WORK: Enter a brief description of the work to be performed during the duration of the permit. Identify any related work instructions such as an "A" or "B" package, Job Safety Analysis (JSA) or other written instructions and submit to the H&S Area Engineer for review with the permit, including only that portion of the work to be covered by the work permit. Specify the location of the worksite using established identifiers such as column numbers, glovebox numbers or electrical panel numbers. Fixed Price and CPFF construction contracts shall not require the "A" or "B" package for authorization work. The JSA or written instructions requirement shall be determined on a case-by-case basis by the H&S Area Engineer and Construction Safety. Other activities requiring a work permit shall be determined on a case-by-case basis by the H&S Area Engineer.

RESPONSIBILITY



* Required only if working in an area of potential radioactive contamination.

Figure HSP 6.05-4. Flowchart for Radiological/H&S Work Permit

6.2.2 Section II: Description of Hazards and Section IV - Preparation for the Job

The Responsible User completes Sections II and IV.

- 6.2.2.1 In Section II the Responsible User shall describe the hazards that may be present in the systems on which the work will be performed and in the surrounding areas.

MATERIAL HAZARDS: Check what chemical and material hazards exist. Write in any other hazards that are not listed.

ELECTRICAL HAZARDS: Check whether the subject systems will be energized when the work is performed. Check the voltage level if applicable and if a laser or microwave hazard exists.

HIGH TEMP/HIGH PRESSURE: Indicate the temperature and pressure condition of the subject systems and if the system is a steam or hydraulic system.

FIRE SUPPRESSION INTERRUPTION: Indicate if fire suppression in the area will be interrupted.

OTHER HAZARDS AND PRECAUTIONS: Enter any other hazards and precautions that do not appear elsewhere on the permit.

- 6.2.2.2 In Section IV the Responsible User shall answer the questions listed. The Responsible User may request assistance from the Job Supervisor in answering the questions pertaining to lockout and tagout and coordination with Utilities and the Fire Department.
- 6.2.2.3 After completing Sections II and IV, the Responsible User may sign Section V. The Responsible User may wait until the entire permit is completed before signing it.

6.2.3 Section III: Radiological and Nonradiological Safety Requirements

This section is to be completed by the H&S Area Engineer and, if the job involves possible radioactive contamination, Radiological Operations. Radiological Engineering review and approval is required for all work inside a Controlled Area, and for work involving radioactive materials or radiation producing devices outside a Controlled Area.

- 6.2.3.1 The H&S Area Engineer shall review the scope of the job, determine if a job site review is required, and indicate so at the top of Section III.

If a job site review is required, the Job Supervisor, Responsible User, H&S Area Engineer and any other necessary personnel shall visit the job site before completing the H&S Work Permit within 24

hours before the job is to begin. They shall discuss the work to be performed and identify any hazards and safety precautions which must be taken. Relevant safety information from this review shall be entered on the work permit.

- 6.2.3.2 The H&S Area Engineer shall indicate if this job requires an "A" Package or a Job Safety Analysis (JSA) based on the following criteria:

"A" Package

An "A" Package is required for specified Maintenance work as described in Maintenance Procedure 3.4, "Maintenance Department Work Packages," and for the following H&S-related applications:

- o All new authorizations, addenda and Field Change Orders which include site preparation, construction, and installation.
- o Repair, replacement, modification, and/or installation work orders where radionuclide or hazardous contamination exist and/or primary containment is breached.
- o Repairs and replacements of all mechanical and electrical items where systems cannot be locked out.
- o Any construction work on roofs and unguarded elevated platforms over 16 feet above ground or any excavations deeper than five feet.

Job Safety Analysis

A JSA consists of the basic job steps, identification of potential hazards, and precautions which shall be taken, per HSP 2.11, "Job Safety Analysis." A JSA is required for contractor work meeting the following criteria:

- o Construction work on roofs and unguarded elevated platforms over 16 feet above the ground.
- o Construction work involving excavations deeper than five feet.
- o Construction work performed in a radiation Controlled Area or involving hazardous materials with an NFPA rating of 4.

The H&S Area Engineer may request a JSA for any other work not meeting the above criteria if he/she deems it necessary to ensure that the job is completed safely.

6.2.3.3 The "A" Package or JSA shall be available for the H&S Area Engineer to review before the job begins. Preparatory and post-job activities not involving activities defined in Section 5 may be accomplished without a work permit.

6.2.3.4 **Multiple Work Permits**

Jobs with several unrelated hazards may require the issuance of multiple work permits to authorize performance of specific work segments. When multiple work permits are utilized, the required "A" package or JSA shall have hold points to indicate when a work permit is required.

6.2.3.5 **Possible Radioactive Contamination**

If the job involves possible radioactive contamination, Radiological Operations input and a pre-job and post-job radiation survey are required. The H&S Area Engineer shall indicate this requirement at the top of Section III.

6.2.3.6 The remainder of Section III shall be completed by the H&S Area Engineer and Radiological Operations as follows:

PROTECTIVE APPAREL: Check the protective apparel required. Consider radiological, chemical, electrical, and other safety hazards when completing this section.

CONTAMINATION CONTROL/VENTILATION REQUIREMENTS: Check any special contamination control or ventilation requirements. (Note: The need for a portable SAAM shall be noted on the "other" line of this section.)

RESPIRATORY REQUIREMENTS: Check respirator requirements for radiological and chemical hazards.

RADIOLOGICAL OPERATIONS REQUIREMENTS: Indicate if Radiological Operations coverage is required at the start of job only, at the start and at the end, on an "on call" basis, or on the job full time.

DOSIMETRY REQUIREMENTS: Indicate dosimetry requirements.

ELECTRICAL PROTECTION REQUIREMENTS: The H&S Area Engineer shall consult with the Job Supervisor in order to complete this section. Indicate electrical protection required.

RADIOLOGICAL OPERATIONS PRE-JOB SURVEY: Before the job begins, Radiological Operations shall survey the work area, complete this section and sign.

RADIOLOGICAL OPERATIONS POST-JOB SURVEY: Radiological Operations shall survey the area at the completion of the job, complete this section and sign.

OTHER SPECIAL REQUIREMENTS: Any safety requirements (e.g., scaffolding or excavation shoring) not covered by the checklists in this section shall be noted here.

- 6.2.3.7 After completing applicable parts of Section III, the Radiological Operations Foreman shall sign Section V. For those jobs requiring the support of Radiological Operations (RO), the RO Foreman shall review and sign Section V a second time, validating the work permit after the RPT has completed the pre-job survey, and before work commences.

6.2.4 **Section V-- Approval Signatures**

The H&S Area Engineer shall review the entire permit and sign Section V.

- 6.2.4.1 At this point, the first four sections of the Radiological/H&S Work Permit shall be complete except for the pre-job survey and final sign-off by the RO Foreman, when applicable. The permit will have been signed by the Responsible User, the H&S Area Engineer, and when applicable, the RO Foreman.

The permit shall now be reviewed and signed by the Job Supervisor and, if the work is to be performed by contractors, the contractor supervisor.

- 6.2.4.2 The Job Supervisor shall notify the Operations Manager that the work is ready to begin and shall initial Section V.
- 6.2.4.3 The Job Supervisor shall review the entire Radiological/H&S Work Permit with all job personnel, and shall emphasize the hazards (Section II) and the safety requirements (Section III). All job personnel shall sign Section V and the work may begin. Any change of job personnel shall require that replacement personnel be briefed and that they sign in Section V.

6.2.5 **Section VI: Permit Extension**

- 6.2.5.1 The actual work shall proceed during the time specified on the work permit. Normally, a Radiological/H&S Work Permit is issued for only one shift of work unless extended by overtime and/or specifically approved by the H&S Area Engineer.
- 6.2.5.2 The H&S Area Engineer may authorize an extension of the H&S Work Permit under extreme circumstances after the actual work has started. The extension date shall be entered on the form and the H&S Area Engineer shall sign Section VI. Extensions for CPFF and

Fixed Price Authorization non-radiological work may be granted up to seven consecutive days when the permit is issued, including all three shifts of each day.

6.2.5.3 For all Radiological/H&S Work Permit extensions granted, the Job Supervisor is required to review the work area daily to ensure compliance with health, safety and environmental standards. The Job Supervisor acknowledges that this review has been conducted by entering the date and his/her initials in the blanks provided. If work is being performed on more than one shift, each Job Supervisor on each shift shall initial. Initials and dates shall be entered on the Job Supervisor's white copy of the permit and the posted card copy of the permit.

6.2.5.4 Extensions are subject to cancellation by the H&S Area Engineer if violations to the above requirements are cited.

6.2.6 Changing Conditions

6.2.6.1 If, during the life of the permit, conditions in the job area change or job personnel change, a new work permit is not necessarily required.

o Minor Changes

Minor changes in the work permit can be made as long as these changes are noted on the white copy and card copy of the permit and initialed and dated by the H&S Area Engineer and the changes are clearly understandable after the work permit is modified. Any changes must be reviewed with the job personnel.

o New Personnel

Similarly, any new personnel added to the job during the life of the work permit shall review the permit and sign the white copy and card copy of the permit.

6.2.6.2 Major changes in personnel or job conditions, that cannot be clearly indicated on the existing work permit, may dictate that a new work permit be generated.

6.3 Post-Job Survey

If Radiological Operations was required on the job, a post-job radiation protection survey shall be performed when the job is completed. Prior to the release of an area or item, the survey shall indicate that the area or item has been returned to the fixed and removable levels, per ROI 3.1. The results must be recorded on the last Radiological/H&S Work Permit issued for the job (on the white and yellow copies of the form, as a minimum).

6.4 H&S Review

6.4.1 Regular Shift

The H&S Area Engineer shall review and sign all Radiological/H&S Work Permits and shall coordinate additional review by other H&S disciplines and the Fire Department, if required. All work requiring work permits must be scheduled through the Plan-of-the-Day (POD) meeting where applicable. Ideally, all work for the following day should be identified at the POD and available for review by H&S.

6.4.2 Off-Shifts

On off-shifts, the permit shall be reviewed and signed by the off-shift H&S Area Engineer on duty. Work scheduled for weekends shall be identified at the Friday POD meetings where applicable. This work shall be reviewed after the POD meetings and the applicable work permits signed by the appropriate H&S disciplines by close-of-business (COB) Friday. If a work permit is more than 8-hours old when the work is scheduled to commence, the Job Supervisor shall review the permit to assure that it addresses current conditions.

Another alternative to weekend work is to arrange with the weekend "on-call" H&S Area Engineer to be available at a specific time during the weekend to sign the permit. In the event that no H&S Area Engineer is available, Radiological Operations management or the Shift Superintendent can review the permit and sign for the H&S Area Engineer.

6.5 Distribution, Retention, and Posting

Copies of the permit shall be distributed as indicated on the form. Permits shall be retained permanently with the job file by the Job Supervisor and for 30 days after the original issue date by the Responsible User and Radiological Operations supervision. The card copy of the permit shall be posted at the job site, removed, and destroyed after the permit has expired.

7. FORM

RF 13010, "Radiological/H&S Work Permit"

8. REFERENCES

HSP 2.02, "Plan For ALARA"

HSP 2.08, "Lockout/Tagout"

HSP 24.01, "Safety Responsibilities for Construction Contractors"

HSP/FLP 34.04, "Application of Floor Paint and Sealer"

Mtce 3.4, "Maintenance Work Packages"

ROI 3.1, "Performance of Surface Contamination Surveys"

For additional information on this practice, contact
K. E. Cavin, Radiological Building Engineering, x5151,
or W. R. Richardson, H&S Area Engineering, x2325.

CONCURRING SIGNATURES:

D. W. Ferrera
D. W. Ferrera
Director, Support Services

6/19/90
Date

For K. J. Freiberg
K. J. Freiberg
Manager, Maintenance

6/20/90
Date

D. M. Hardin
D. M. Hardin
Acting Manager, Radiological Operations

6/19/90
Date

K. F. Miller
K. F. Miller
Manager, Fire Department

6/19/90
Date

J. M. Shaffer *For*
J. M. Shaffer
Manager, FPM Program Control

6-19-90
Date

J. D. Weaver
J. D. Weaver
Manager, H&S Area Engineering

6-19-90
Date